FIG.1

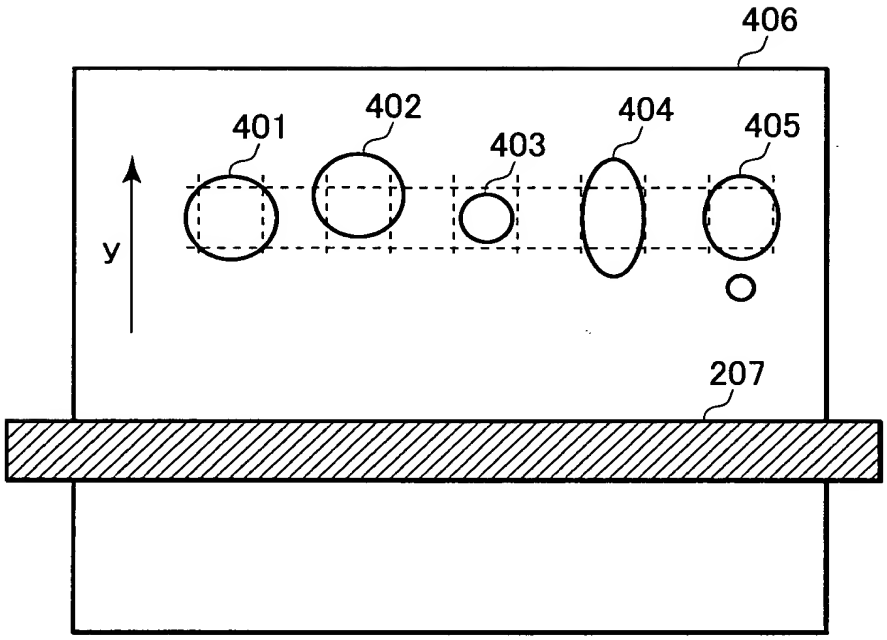


FIG.2

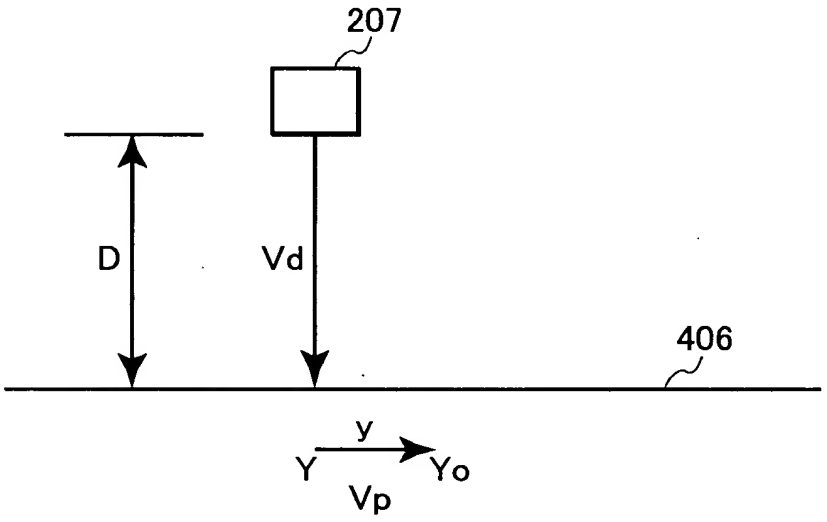


FIG.3

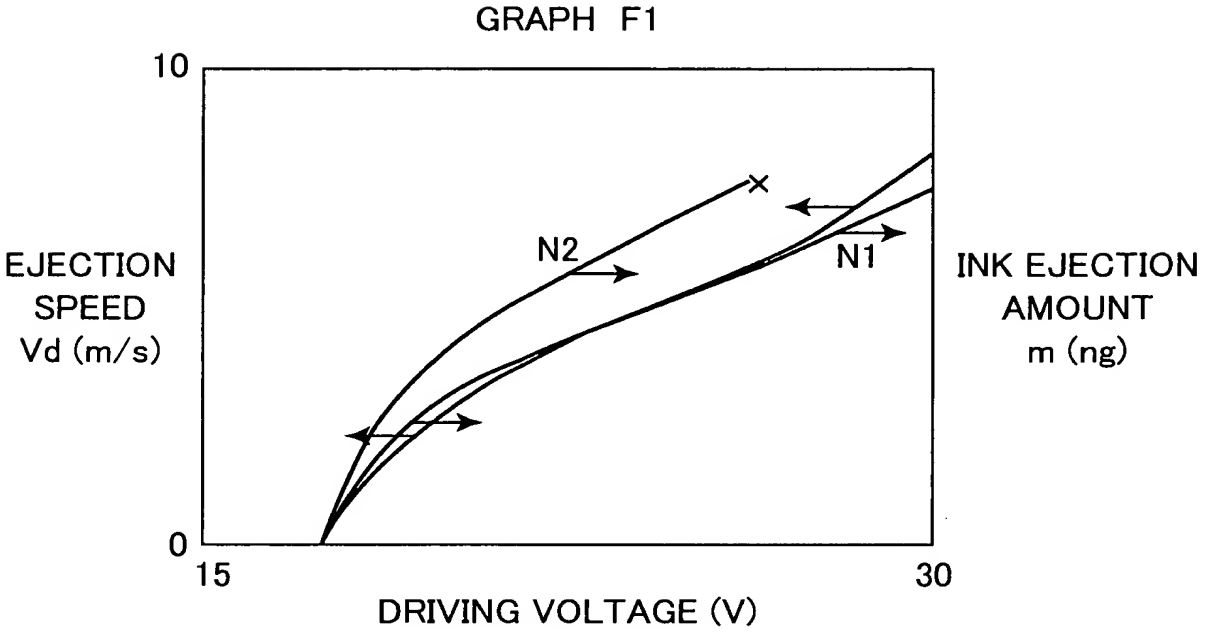

GRAPH F1
10
0
15
30
EJECTION SPEED Vd (m/s)
INK EJECTION AMOUNT m (ng)
N2
N1
DRIVING VOLTAGE (V)

FIG.5

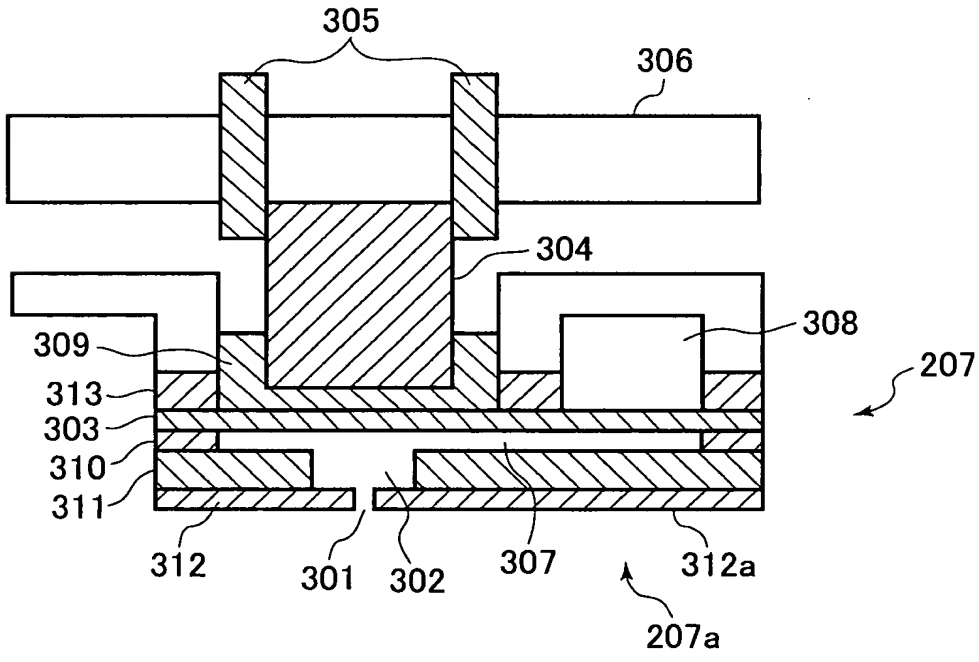

305
306
304
308
309
207
313
303
310
311
312
301
302
307
312a
207a

FIG.4

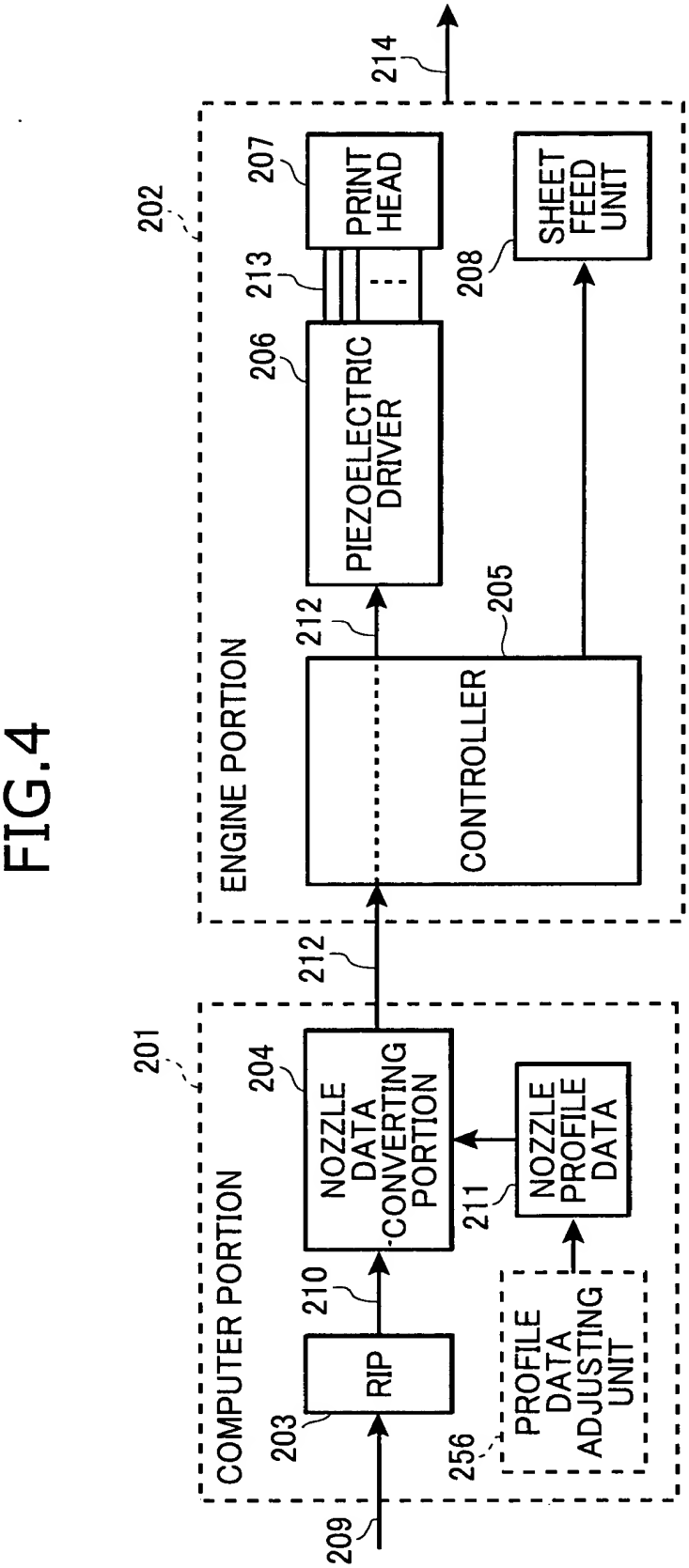

COMPUTER PORTION
201
RIP
203
209
210
NOZZLE DATA CONVERTING PORTION
204
212
PROFILE DATA ADJUSTING UNIT
256
NOZZLE PROFILE DATA
211
ENGINE PORTION
202
CONTROLLER
205
PIEZOELECTRIC DRIVER
206
PRINT HEAD
207
213
SHEET FEED UNIT
208
214

FIG.6

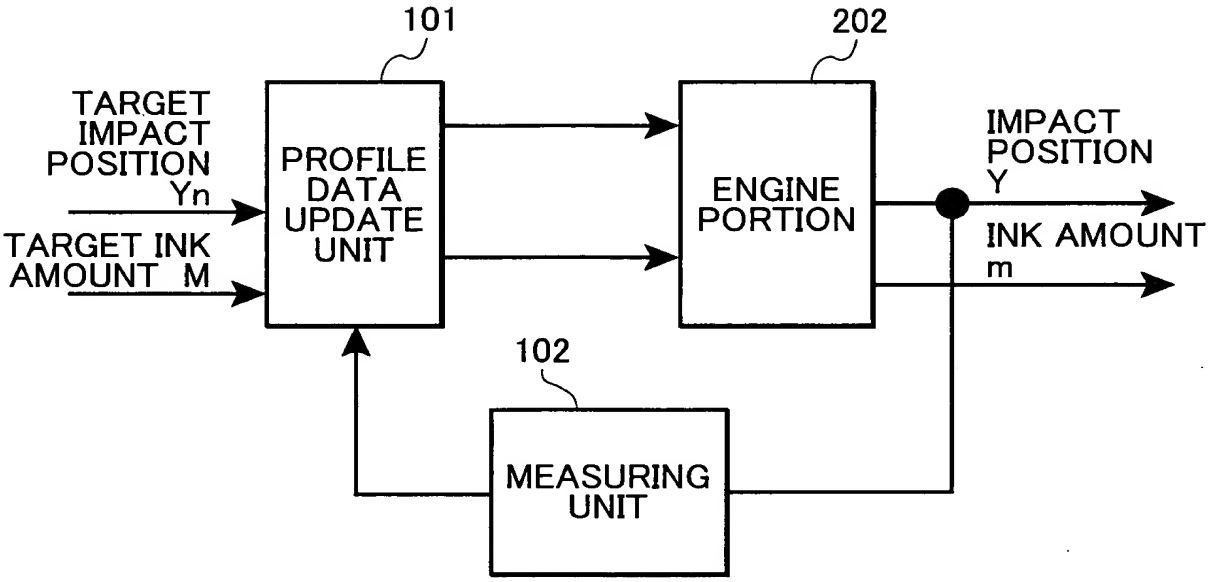


FIG.7

NOZZLE NO.	COORDINATE VALUE		PULSE DATA 1	PULSE DATA 2	--------	PULSE DATA N
	x	y				
1						
2						
3						
⋮						
5,120						

FIG.8

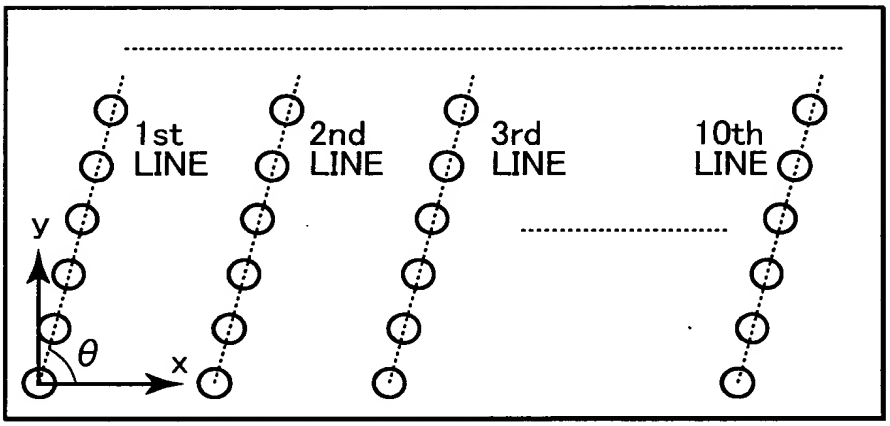


FIG.9

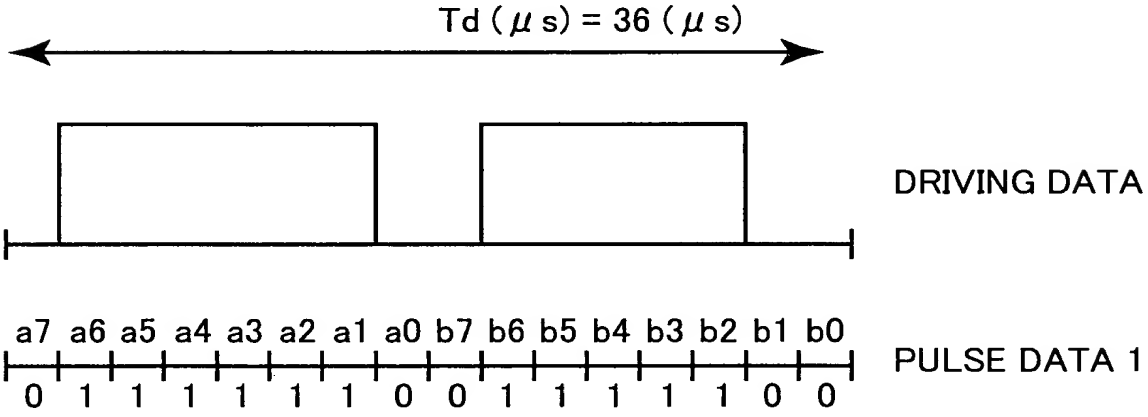


FIG.10

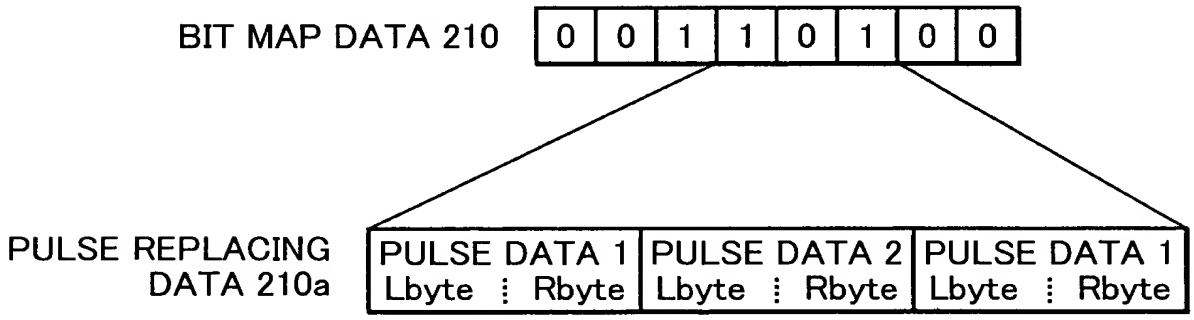


FIG.11

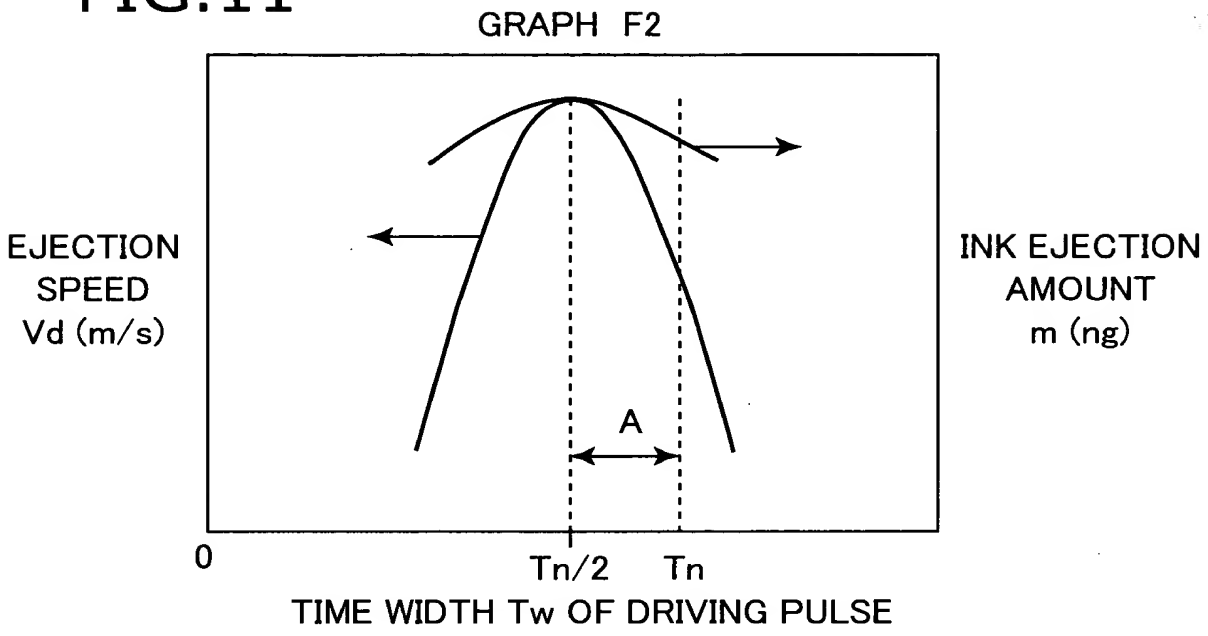


FIG.12(a)

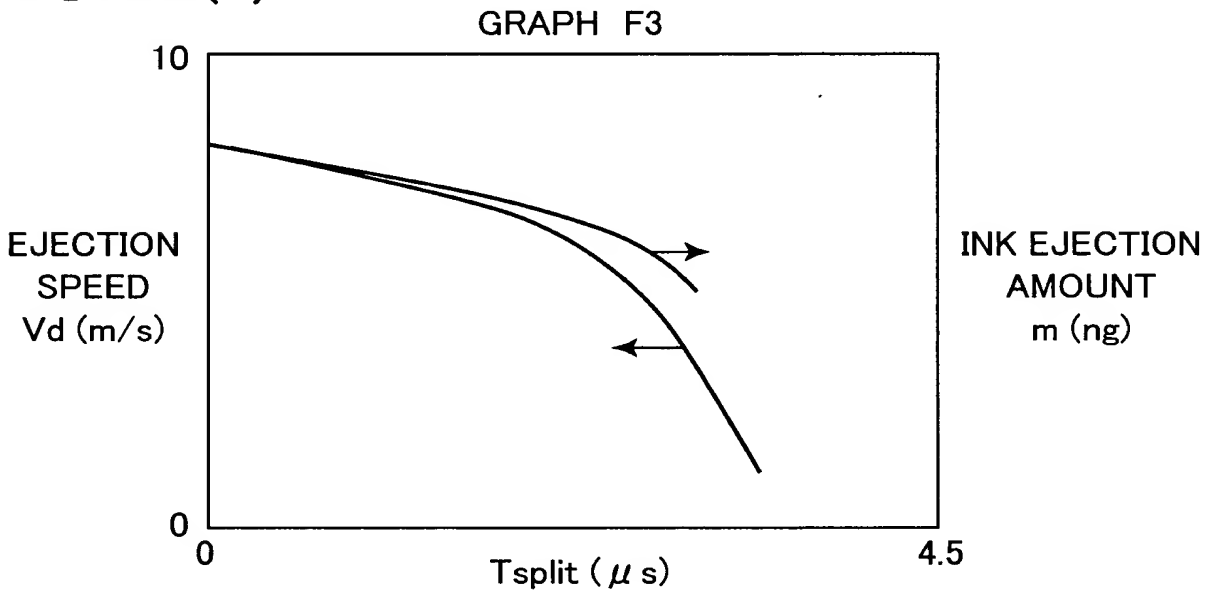


FIG.12(b)

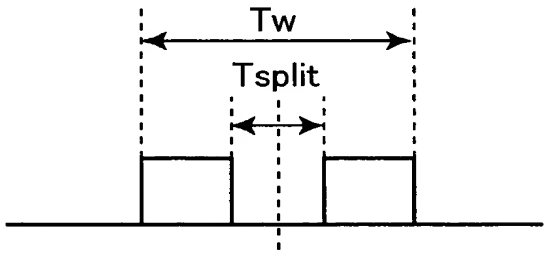


FIG.13

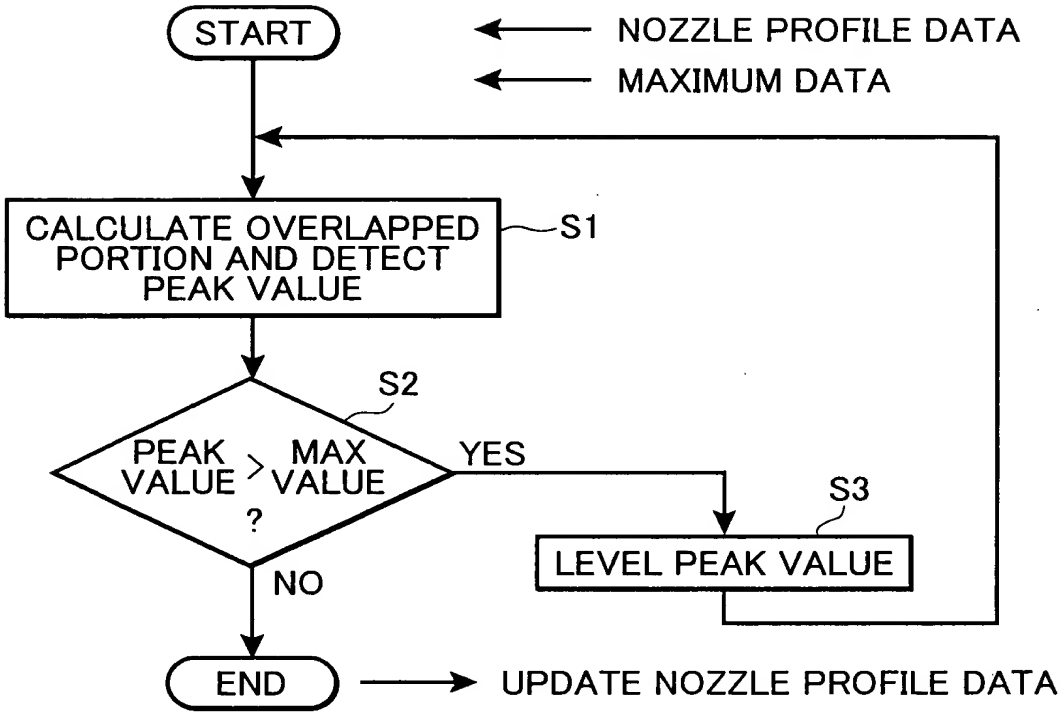

START
NOZZLE PROFILE DATA
MAXIMUM DATA
CALCULATE OVERLAPPED PORTION AND DETECT PEAK VALUE
S1
S2
PEAK VALUE > MAX VALUE ?
YES
NO
S3
LEVEL PEAK VALUE
END
UPDATE NOZZLE PROFILE DATA

FIG.14

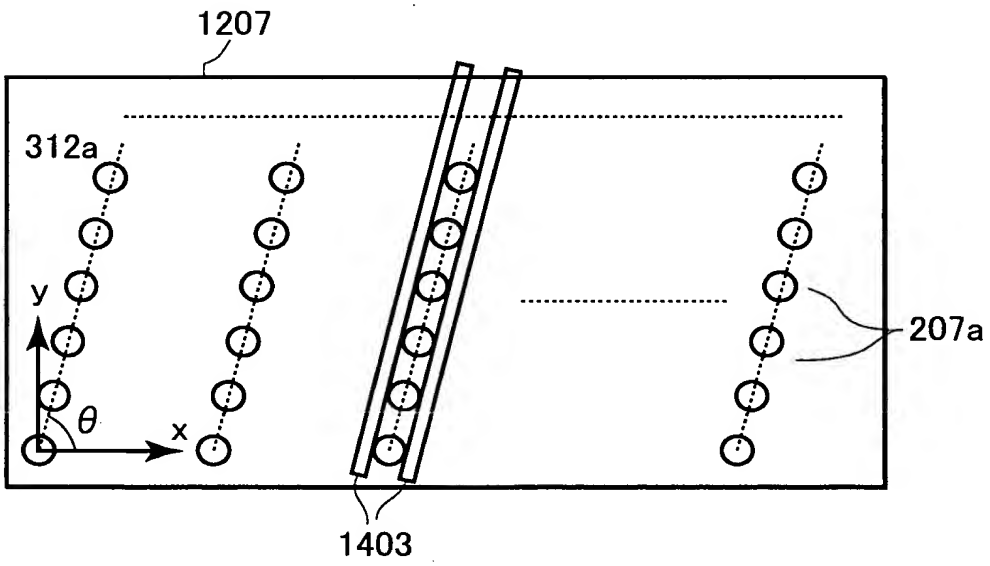

1207
312a
y
θ
x
207a
1403

FIG.15

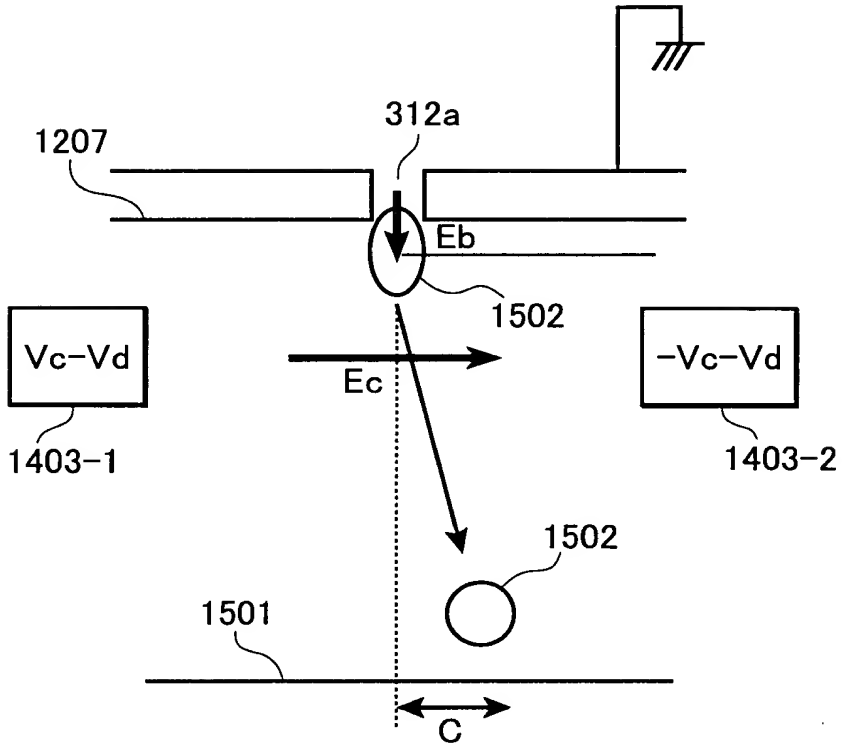

312a
1207
Eb
1502
Vc-Vd
Ec
-Vc-Vd
1403-1
1403-2
1502
1501
C

FIG.16

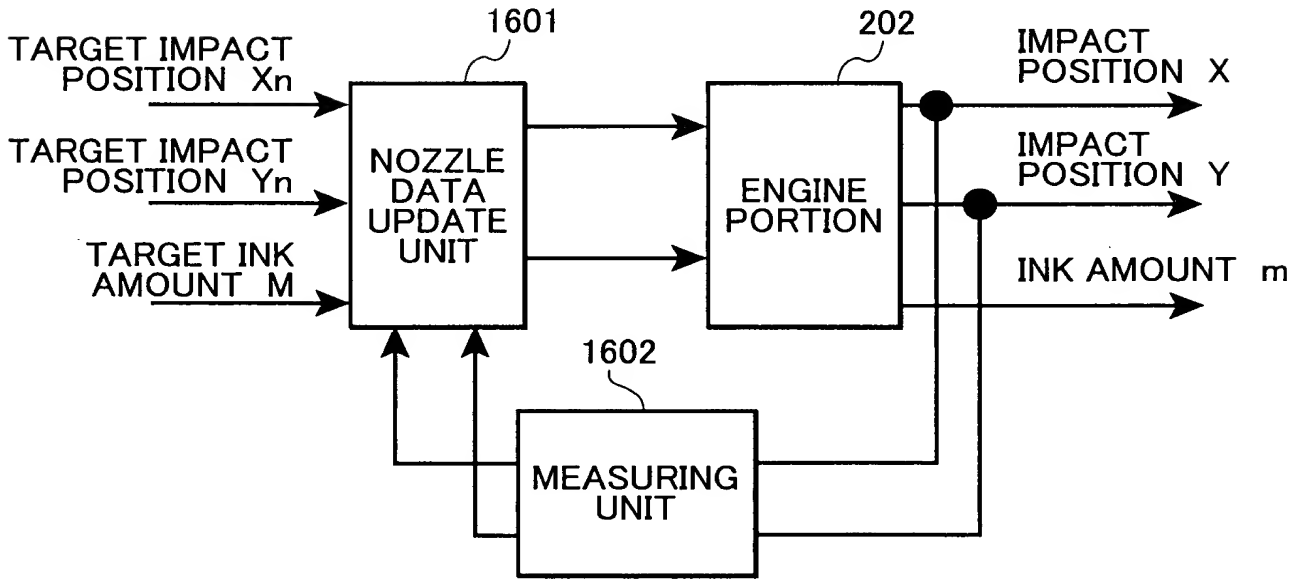

TARGET IMPACT POSITION Xn
TARGET IMPACT POSITION Yn
TARGET INK AMOUNT M
1601
NOZZLE DATA UPDATE UNIT
202
ENGINE PORTION
IMPACT POSITION X
IMPACT POSITION Y
INK AMOUNT m
1602
MEASURING UNIT

FIG.17

NOZZLE NO.	COORDINATE VALUE		PULSE DATA 1	PULSE DATA 2	--------	PULSE DATA n
	x	y				
n1			07e0			
n2			03e0			
n3			03c0			

FIG.18

NOZZLE NO.	COORDINATE VALUE		PULSE DATA 1	PULSE DATA 2	--------	PULSE DATA n
	x	y				
n1			03c0			
n2			0340			
n3			02c0			

FIG.19

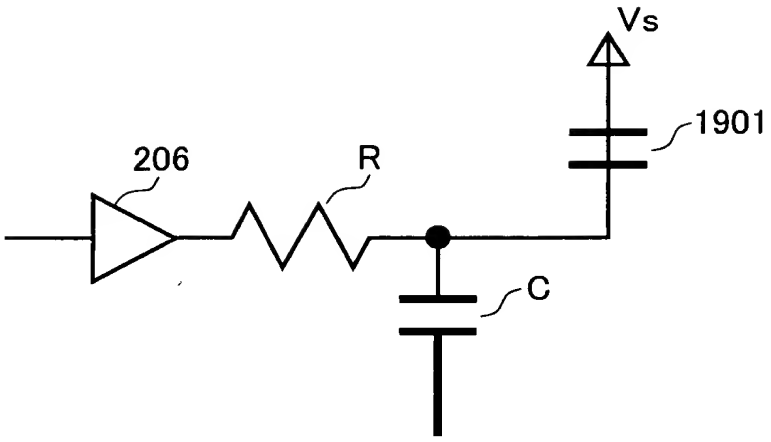

Vs
1901
206
R
C

FIG.20

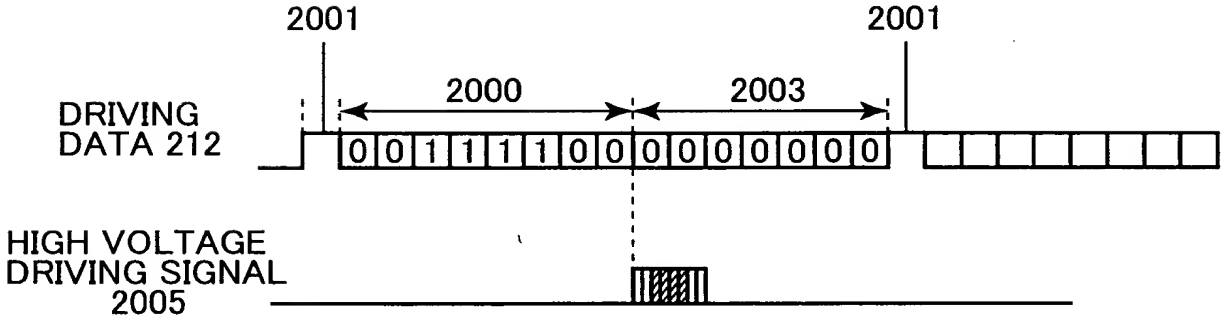
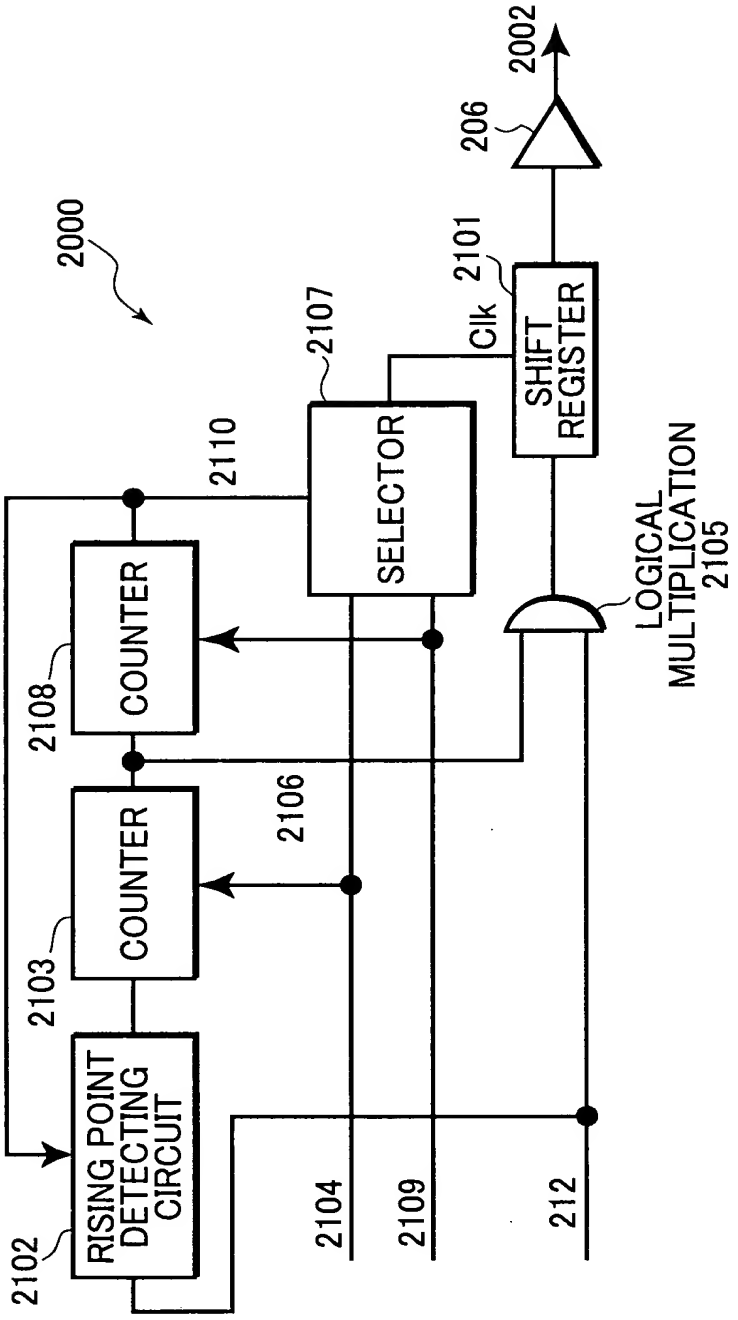

2001
2001
2000
2003
DRIVING DATA 212
0 0 1 1 1 1 1 0 0 0 0 0 0 0 0 0
HIGH VOLTAGE DRIVING SIGNAL 2005

FIG.21


2000
2002
206
2101
Clk
SHIFT REGISTER
2107
SELECTOR
2110
LOGICAL MULTIPLICATION 2105
2108
COUNTER
2103
COUNTER
2106
2102
RISING POINT DETECTING CIRCUIT
2104
2109
212